\$1.00 per copy Please support your computerJOIN CATS:

Vol. 4, No. 10
January $1988^{\prime}$

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## WERRE STILL TICKITVG: RENEW!!

## PRESIDENTIAL RAMBLINGS

To get right down to business, we are updating the membership roster, and we need the correct information for phone numbers, mailing addresses, etc. Please take the time to send Mark Fisher, Ruth Fegley or myself your current status.
DID YOU GET A QL KIT?
There will be no doubt quite a few QL kits that have been put together or will be ready to put together at the next meeting. Come early to the hardware workshop (12:00), and we can get started. I understand that the keyboards have been the biggest problem. Apparently this is due to rough handing in transit. This is easily cured, so if your QL does not respond at sign on, bring it to the workshop and let's check it out.

Since there will be about 25 QL's added to the club, we will devote some time to explaining the QL's virtues. Come with your questions and we will do our best to answer them all.

## COMPUTERFEST NEWS

Leave the first weekend in May open for the next Timex/Sinclair Computerfest. The location this year will be the Holiday Inn North in Indianapolis, Indiana. There will be a Hardware and Software swap shop, a much enlarged Vendor area, and simultaneous seminars and tutorials on various facets of computing. For more information, get in touch with Frank Davis (317) 872-9790. We'll have more information on these pages as the day draws near. Come to the meeting and get all the details early.

## GROUP BUYS?

Anyone interested in purchasing QL paraphernalia, come to the meeting BEFORE you make your purchase.

## DON'T FORGET

## CmTS 1 January

## December Meeting Has A Visit from St. Clive

The main business of the iats Lecember meeting concerned the dues situation for 1987.

The five action 1 tems discussed were:

1. Raising dues $\$ 2$ (to \$i8/year) to maintain the status quo.
2. Leaving dues at \$16/year and cutting back various services.
3. Fublishing a newsletter every other month.
4. Using the postal service's less expensive bulk mail service.
5. Handing out the nevsietters at the monthly meetings.

After more than two nours' discussion spanning two monthiy meetings, it was decided by the group to increase the annual dues to $\$ 18$ and to maintain the newsletter at its present size and frequency.

Members who pre-paid thelr dues prior to the December meeting will not be affected by the increase this year.

## Santa Clive Sinclair

The conclusion of the business discussion was followed by the ${ }^{n}$ plrst Ever Clive Sinclair Holiday Gift Exchange". This enjoyable event featured members bringing their own secret Sinclair gifts to be traded anonymously using a randy numbering system. Upon opening a gilt, a participant had the option of "bank-switching" with any previously opened package.

The most popular item during the bank-switching proved to de a seasoned but usable Sinclair 16-k KAM-pack, which changed hands several times.

Word has it that Santa's helpers have already begun to squirrei-away their Sinclair-related goodies in preparation for the Second Annual Clive Sinclair holiday event next year.

It is nine monthe now since I left the D．C．area to go and liwe in ftanta and a seam simes 1 Futended my last CATS meetire．I am Fleased to be still getting the b月TS newshetter，it keaps me in touch．I hawe finalls managed to track down a small TAS user grouF in Htlanta thanks to＂Eills口bsession＂：a Times EES run from Ht1anta 《Call 404－377－2550》．

This text is being written using ＂The Last Worid＂from Sasa systems． I think it is the first spectrum wordprocessor to seriousls challenes Tasword $z^{\text {．}}$ The Last Word ©or TLA： ofters an on Ecmenn menu Eimilar in stale to the OL quill．It comes on cassette tafe but is supplifed with comwersions for Sinmelar microdriwe and some fopulam SFertrum dise dr＂dos mumh de OFus －Eetar and Kerfetonn TLU comes vonfigumed to drive the Euroelectronics 2 LFFINT III Frinter interface but it mas be Eet to drive a wariety of other Fopular SFectrum Frintar interfoces such as Tasprint． Fiempoton sind Morex．
TLU Ean disflas 40，48，E4，or 6 chargaters Fer line．For this text 1 an using the 40 wharacter line displas．Using lis TEcdes in BFectrum mode with a composits colom monitom I usually use the 8 g columin displas mode．For＊some resson the 80 column mode is much clearer on ma sureen than the Eq columin mords．
The range of printer control fuñotions is ver゙s extensive so much wo that I found them difficult to grasp at first，but eucitually worth the stues．TLW has a built in Elock which beeps evers 30 minutes to remind you to Ewe woum files． TLA also has a built in calmulator which mas be accessed at ans time． and the results of a calculation can br inserted in the text． To ansone looking for a good wordfrocesegr：or if like me su just collect them then I can recommend The Last Mord．

1 think I mas haue written a brief note in the last sear about Fultiface onm．If suthér I wan only add GET OHE HOW．It is the perfect dewite for bating uF sour tafes ar tremererming them to microdriwe．Multifare gne can back uF and frogram with a single fush of a button．I hawe now transperred all my software to microdrives and 1 Gan＇t remmber the last time I use日 cassettes．Multifure one Ean also be used to Eave soreens．COPY sereens to EPEOn compatitule Frinters，and put FokEs intor ans prosmam．It also doubles as a josstick interface and prouides an extra gr of user memors．
While mentionine Miorodrives I must say again that．I hawe never underetood whe thes are suFFosed to be unreliable．I hawe besir using them for two weam now and have anls lost one cartridge out of oust sixts．It is true that on ocmasion a well used Frouram has refueed to load，however Ewen that probler has bewn solwed by merurthese of Nicrodriwe Doutor．This program will find and restore damaged Mionodrive sector＂amd usually mate the offendine frosram rum asain． Microdmo dectom will also format Eartridges to about 16010 or sor instead of the normal S5K．Thus it is esse to fit tho 48t frograme on one cartridat．
1 beliew mans CATS menbers are Going tu bus the wl kitand I wish all who bus the ol good luck．I recently Furwhased a ol and I am wery Fleased with it．The FSIOH softwane that cornes with it is realld superb and would be worth the asking Frice even without the computer．
Best wishes to all CATS members． please write or call me if sou want and intormation on getting Spertrum harduare or zoftuare from England．I assure you it is meally esey to do and is often quicker． and theafer thain going through a U．S．dealer．

TOHY EROOKS
404－565－8979
2951 Pathuted Lane Mamietta GA506z

The Timex Sinclair Amateur Radio Users Group
The Timex Sinclair Amateur Radio Users Group is made up of computer users who are interested in putting their Timex or Sinclair computers to use in amateur radio operations. Organized more than four years ago, most of the members are rat computer experts; but they do have a good technical background in electronics, so they quickly learn quite a lat about their computers. Most, but not all, members are licensed by the Federal Communications Commission to operate in the amateur radio service and one of the main reasons these amateurs bought their computers was to use them in their radio operating activities.

The journal of this group $i \equiv c a l l e d Q 2 X$. The name was patterned after some of the abreviations for operating procedures used by amateurs and after some other magazines with which amateurs are familiar. The journal is the main benefit of membership. It $i s$ sent monthly all members. Membership costs生 12 per year <with a 13 postage surcharge for members who live outside of the United States, Canada, and Mexico). The journal publishes complete programs and hardware projects submitted by members. The journal also publishes personal items about the members and information about operating events such as nets in which the members might be interested.

The group is a small but active collection of people who are working hard to expand the usefulness of their computers by writing programs and buying and inventing hardware additions. There are members in almost every state and in about 20 different countries.

Those who wish to join (and they need not be licensed amateurs) can do so by Ending $=12$ dues to Alex. F. Burr, k5xy; $20250^{\prime}$ Donnell Drive; Las Cruces, MM, SEal.

## SyncWare News

The journal for technical applications of T/S computers

Will the person who, at the december meeting, walked off with my latest (Nov-Dec) copy of SyncWare News please:

- Return it at the January meeting:
- Mail it back to me the address label is still on it); or
- Forward a check for $\$ 3$ (what it cost).

This publication was not intended to be a "freebie".

Nor was it for sale.
Its return would be appreciated.

## MME,

Weir Another year
Has GONE By Mai your PuBLRATION GETS BETTER Every issue. I HHLE ENCROSED IG FOR My DUES FOR PNOTAER YEAR. KEEP UP THE GOOD WORK!
C. H. DICKSON

WERE STILL TICKING:
344-1068


Circuit Quest 2000 by Mark Fisher

The following program is a translation of a T51000 program that I originally translated from Cavern Quest for the Commodore Pet (whew!). It's a maze game - you search through the nodes of the printed circuit for the prize (the datal, and then must find your way back to the entrance port. There are no monsters or random occurences, just a lot of choice points and limited information. With the luxury of plenty of memory, I've added a graphic plan of the maze.

Type in the listing as shown; SAVE it with GOTO 9000, and it will auto RUN upon loading.

Variable5; as they appear:

| x $\$(12,14)$ | Holds object descriptions |
| :---: | :---: |
| (\$(416) | Clears upper sereen |
| i | General counter |
| 2 | Object counter |
| $t$ | Iteration counter ()300=nore rooms) |
|  | During play, flags posession of data |
| 2\$(300) | Maze array ()300=less overlap of |
|  | passages; but change lines 110, 550 also) |
| a | Position in naze; node nunber |
| d | Proposed change to "a" |
| 1 | Proposed new value for "a' |
| j | East-West movenent value |
| $v$ | North-South novenent value |
| 6 | Up-Doun novenent value |
| PEEK 23689 | Picks up print position on screen |

You can eliminate the visual plot of the maze by removing lines 155, 215, and 271.

I'm thinking of suing Tron for plagarism: any potential backers in this please let me know. I'm also interested in any working circuits this produces: see Computer Intelligence: Artificial or Counterfeit in this issue.

1 REY Circuit quest '86
2 DIM $x \$(12,14)$ : DIM $C \$(416)$
3 FOR $i=1$ TO 12
4 READ a\$: LET $x$ (t(i)=as
5 NEXT i
10 LET $2=0$ : LET $t=300$ : DIM a\$(300): LET $a=10$ : LET $3 \$(a)=* * *$

29 PRINT "Creating Maze"
30 LET $t=t-1:$ IF $t<1$ THEN 60 TO 240
35 LET $\sigma=1 N T$ (RNO*7): REM randon value between 0 AND 6
40 IF $\alpha=2$ THEN LET $\alpha=-1$
50 IF $d=3$ THEN LET $\alpha=-10$
60 IF $\omega 4$ THEN LET $\neq 10$
70 IF $\alpha=5$ THEN LET $\alpha=-150$
80 IF $d=6$ THEN LET $\omega=150$
90 JF t=O THEN 60 TO 180: RE9 place object

100 LET $1=a+d$
110 IF 1)300 OR 1《1 THEN 60 TO 30
120 IF a $\left.{ }^{(1)}(1)\right)^{1} 7^{*}$ THEN 607030
140 LET ${ }^{(1)}(1)={ }^{1} 1^{\prime \prime}$
150 IF $\alpha=-150$ THEN LET as(1)="8": LET as (a)="9"
155 CIRCLE $3+6 *\{3$ NT $(a / 10)), 3+6 *(a-(10 *$ INT $(a / 10))), 2$
160 IF $d=150$ THEN LET $a \$(a)={ }^{4} 8^{4}$ : LET $a(1)={ }^{1} 9^{4}$
170 LET 2=1: 60 TO 30
179 REM 큘 Place Objects *****

190 LET $2=2+1$
200 IF 2) 212 THEX 60 TO 30

215 PRINT $x \$(2)$ : CIRCLE $3+6 \times($ JNT $(a / 10)), 3+6 *(2-\{104$ INT ( $2 / 10)$ )
),1
22060 T0 30

240 LET a (a)=CHR ( $12+65$ ): PRINT $x+(12)$
245 LET $\mathrm{a}=10$

250 PRINT AT 0,0;ct: PRINT AT 0,$0 ; a:$ IF a< $\rangle 10$ THEN 60 TO 270
260 PRINT "J-0 Port"
261 IF t<>1 THEN 60 TO 270
262 PRINT "\$\$st\% You nade it! \$\$1\%"
26360 TO 262

270 PRINT "Conductors lead: ";
271 PLOT $3+6 \times(\mathrm{NNT}(a / 10)), 3+6 x(a-(10 \times 1 \mathrm{NT}$ (a/10) ))
275 IF a)10 THEN IF $\mathbf{a}(\mathbf{a}-10)()^{*}$ : THEN PRINT TAB 20; "North ${ }^{3}$
280 IF a 290 THEN IF $a(a+10)\left\rangle^{\text {" }}\right.$ : THEN PRINT TAB $20 ;$ "South"
290 IF all ThEN IF at $(a-1)<)^{*}$ "ThEN PRINT TAB 20;"West"
300 IF a (300 THEN IF $\mathbf{a}(\mathrm{a}+1)<)^{*}$ "THEN PRINT TAB 20;"East"
310 IF $a \leqslant(a)={ }^{3} 8^{\prime \prime}$ THEN PRINT TAB 20;"Doun"
320 If as (a)="9* THEN PRINT TAB 20;"Up"
329 REM *) Object sights ****
330 IF $a \$(\mathrm{a})\left\langle=^{\prime \prime} 9^{\prime \prime}\right.$ THEN 60 T0 450 : REY All objects are flagged by values greater than ASCII "9"
340 PRINT "You see ";x (CODE a\$(a)-65)
350 If as $(a)=" M^{*}$ THEN LET $t=1$ : PAUSE 30: LET as $(a)={ }^{*}$ "
440 REM ${ }^{3}$ 为 Get direction info
450 LET $\mathrm{j}=0$ : LET $\mathrm{v}=\mathrm{j}$ : LET $\mathrm{r}=\mathrm{j}$
460 LET $j=(\operatorname{STICK}(1,1)=9)-(\operatorname{STICK}(1,1)=4)$
470 LET $v=(\operatorname{STICK}(1,1)=2)-(\operatorname{STICK}(1,1)=1)$
480 LET $r=\operatorname{STICK}(2,1)$
490 IF $j+u+r=0$ THEN 6010460

REM Update position: LET $l=a-\left(s u b, c^{\prime}\right.$ only if $a(a)={ }^{8} 8^{\circ}$ and clin
$b$ has been selected, te only if "9" AND cliab, $+10 x y+j$ )
550 IF $1 / 1$ OR 13300 THEN 60 TO 600
 $l=a-\left(60\right.$ TO deadend sub only if $a(a)==^{8} 8^{2}$ and clinb has been se lected)
570 LET $\mathrm{a}=1$
58060 TO 250
600 PRINT "--No-current-path--": JF PEEK 23689=13 THEN PRINT

61060 TO 450
1000 DATA "a NND gate","an OR gate", "a ROM", "a bloun fuse", "a v
olume control", "a RAH chip","a resistor", "an enpty socket", "a fl
ip-1lop",'a solder pad","a LED","THE DATA !!!!!!!"
9000 CLEAR : SANE "c-quest" LINE 1
9001 SANE "c-quest" LINE I

We continue from last issue with Wile R.'s article on his one board speech synthesizer -- ZVOICE.
Listing 4 shows how a TEXT TO SPEECH program can be implimented.
A text string is scanned one word at a time, with "spaces" as separators. If the word is in the vocabulary, then the word is spoken; if not found, phonetic pronunciation of the word, or the phrase "WORD UNKNOTNN" is spoken.
New words are easily added by defining them as NUMERIC VARIABLES which are then used as an INDEX into the VOCABULARY.

SIMPLIFIED EXAMPLE:

```
B$=PHONEME DATA FOR "ZVOICE"
B=LEN B$
B$(B)=CHR$ (CODE B$(B)+128)
AS(END TO END+B)=B$
ZVOICE=END
END=END+B
RETURN
```

AS is a I DIMENSION ARRAY which contains the VOCABULARY in phoneme format.
BS is a new string of phonemes to be added to the VOCABULARY with the last phoneme identified by adding 128 (set BIT 7).

In this example the text word "ZXVOICE" becomes the name of a numeric variable which is set to END, the pointer to the end of the VOCABULARY.
END is updated by adding the length of the new word in BS to END.
The advantage of this method is natural sounding speech from text, the disadvantage is memory overhead for the vocabulary.

The concept of a new PHONEME EDITOR is described here which uses cursors or a joystick to take the tedium out of composing pHONETIC WORDS.
This method would arrange the phonemes and common sound element combinations in a matrix or logical array on the screen.
The cursor movement would select an element which is provisionally added to the end of a phoneme string and is tested by voicing the whole string including the new element.
reprinted from:
Ix AppeaL
Vancouver Sinclair Users Group
see Deciiss. for 15I part of this article

If it sounds good, it is added to the string, by pushing $N / L$ (ENTER), and then the next element is selected and tested.
Words are built up and when complete are added to the VOCABULARY.
Again the text word can be used as the numeric variable index so that the new phoneme string starts at AS(TEXT).
In this way any word can be accessed and spoken with the simple BASIC routine:

## RAND TEXT

RAND USR 16514

These routines are just scratching the surface of a comprehensive speech synthesis package.

## SO STAY TUNED FOR MORE.

Next time we connect ZVOICE to the TELEPHONE, add some AI and start a FRENCH/ENGLISH dictionary.

## Where can I get zVOICE?

I am donating copies of the software to the CLUB LIBRARY for noncommercial use by club members.
ZVOICE will be offered to club members as a kit of parts, including a PCB, for approximately $\$ 25.00$. Available in 4 to 6 weeks.

WILF R. logging off.




LISTING 4


FRANK \& ERNEST BOB THAVES


REAL USES FロF WU－CALC by Akin olowofoyeku

Vu－Calc is a powerful program－but its power is only apparent after you define the job it is to work on．Akin has developed the following set of formulas，allowing the spreadsheet to function as a sales journal．To make your own， LOAD an 80 column version of VU－CALC，place the cursor on each cell indicated，and enter the specified material．The first character determines whether the material is data，text，or formula．ED

| Location：Pnstruction | Location：Instruction |
| :---: | :---: |
| a！：\＃¢ a， 1 | ：12：\＃r，h12，：12：avi2 |
| al：＂Hels Paga－－－－＞＊g，a！5 | awt：＂－－－－－－－ |
|  | aw2：\＃F，awı，aw2：aw12 |
|  | 205：＂TOTAL |
| －t：＂AKD ENTEFENSES |  |
| b6：＂1613 DAVTON SCAD | ax10：\％h10：${ }^{\text {av10 }}$ |
| E6：＂ADELFHI，MD 20783 | axi2：${ }^{\text {ant }}$ 2：av12 |
| E5：＂EALES | 216：＂HELF FAGE |
| 67：＂REGISTER | 016：＂－－－－－－－－－ |
| el0：\＃f．tv， |  |
| E！O：＂JAN．（or zurrent manth） | d15：＂2，Enter Data \％＂moiday |
| e12：4f，12．f | el5：＂3．Entar Invoice ${ }^{\text {\％}}$＂nuater |
| e12：＂1986（or current year） | \＄15：＂4．Enter Ta＊Codeswo 5ales＝1 |
| f1：＂ 2 ：＝ะ＝ | g15：＂S．Enter Nameर28chrs；＂names |
| f2： $40.72,+2:+12$ | his：＂\％．Enter Sales Amount ${ }^{\text {ammount }}$ |
| gl：＂JATE | i15：＂\％．Go Calculate Net＞\＃\＃，ax 12 |
| ¢̧：＂${ }^{\text {ONOICE }}$ | j15：＂8．Calc．Net Proceeds ${ }_{\text {che }}$ |
| ģ：＂CODE | k15：＂9：Save Data 䉼 |
| 94：＂SOLD 70 | 115：＂10．Lead Data＞ 11 |
| ga：＂AmOUnT | als：＂1l．frirt Data＞ |
| gio：＂TAX | 日is：＂12．Review jmove by arrows |
| g12：＂NET | pla：＂Snter 0 gigl to return |
|  | ag16：＂TABLE OF CONTENTS |
| h3： 0 | ahl6：＂－－－－－－－－－－－－－－－－－ |
| iv：\＃r．havisuav | as15：＂1．Invoice ${ }^{\text {a Date }}$ Of Sale |
|  | aj！5： 2 2，Customer＇s Name |
| 19：0 | akl5：＂3．Amount of Sale |
| 18：Wr，h8，ig：ave | alis：＂4．Taxes Paid By Residents |
|  | aint5：＂5．Net Payment by Customer |
|  | an！E：＂6．Total Sales for Pariod |
| 110：＊r，hio，ilviavio | a0t5： 7 7．Total Taxes For Period |
| h12：＊f．12，事， | apis：ag．Net Proceeds For Pariod |
| niat merno | arit：＂Enter \＃g．git to return |

NOTE：You＇ 11 need a VU－CALC 2068 program that can print to an 80 column printer．Load the program．Then load Sales Journal，saved as＂srtemp＂．As some people have problems entering programs and getting them to run，I＇ve decided to make tapes available at $\$ 6$ postpaid．Make check／money order payable to the above address．


# RENIEN: <br> THE GUIDE TロTHS TELECDMMMUNI CATI ロNS 

## by Steve Ishii and Paul Fischer

P.O. BOX 2002, Tempe, AZ 85281

Do You really need it? If you are thinking of getting a MODEM, YES. If you own a MODEM, YES. If you subscribe to Compuserve, YES. If you use a BBS, YES. If you're going to buy a UAX $11 / 44$ tomorrow, perhaps. This book is as important a work as the manual that came with your machine. Why? Read on....

Sinclair stuff attracts people like this, you know? Along with the bulk of us users, the $T / S$ community has been blessed with a few people that have really put forth the extra effort to do a superlative job, and have made it possible for the rest of us to expand the use and utility of our machines.

There are innumerable examples of this dedication. Jack Dohaney saw a good program that was crippled by its "user friendliness" - the result (after a year) was M-Script U. Barry Carter saw a good program that was offered essentially without documentation, and wrote his manual for the Smart-Term II program. And now, Steve Ishii and Paul Fischer have condensed a year of concentrated study of bulletin boards and MODEMS into a 52 page booklet; The Guide to $T / S$ Telecommunications.

Hmm... 52 pages, huh? Yeah - but each page is PACKED with information. That's gotten to be a cliche, but when each page's text laps within $1 / 8^{\prime \prime}$ of the edge of the page, it's the only word that describes it. Once the info is in the book, how do you get it out? In this case with clear organization, a table of contents, and a complete index.

Complaints? Yes. The Timex community is so cheap it won't support ventures of this kind, and the result here is photo-reduced pages. The end product is $97 \%$ readable, but it's a strain. If this effort received the professionally typeset, perfect-bound treatment it deserved, reading it would be a joy. Paul and Steve plan to put out a full-sized version, with $40 \%$ more information in the future. I'll be waiting.

Coverage? The authors have produced a comprehensive guide to the use of MODEMs. Comprehensive means that they have gone from detailed coverage of available bulletin boards (BBS's) with Timex focus, through comprehensive discussions of how to get around on a BBS once you're in, to a detailed look at available MODEMs and the programs that run them. Note the repeated use of words such as "detailed" "comprehensive", and "complete." This isn't an accident - there just isn't any way to show you without using 52 pages of fine type myself.

So where do I get it? The Authors have placed this information in the public domain - meaning. Xerox is OK. We will be taking orders at the meeting for copies, or you can send a large SASE and $\$ 5.00$ to the above address. I would encourage you to add an extra $\$ 5.00$ as a gesture of thanks to the authors.

# Capitol Area Timex/Sinclair Users' Group <br> P.O. Box 725 <br> Bladensbu:'g, MD 20710 

Nacre
Address $\qquad$
Prone biome $\square$ Office $\qquad$
":embersinins - \$18.00 (famil-/individual);make checks parable te C.A.T.S. If family membership, please list family members particinating:

Occupation $\qquad$ Fam Taino call sign $\qquad$
Equipment
$2 \times 80$
ii 80
Z: SI
1000
2500

special interest use for computer: ie, Emmen, harl radio interface, business, other, etc. $\qquad$

Languages: Basic
0 her
l:achine $\qquad$
No. Of years computer experience
frat committees would you like to serve on?

## comments: Where did you hear of C.A.T.S?



Do not write below:
It. Pd.

$\qquad$
Membership No.
Ca.
Ck.



CATS Newsletter
P.O. Box 725

Bladensburg MD 20710


COME TO OUR MEETING!
The next meeting of C.A.T.S. will be held on:
Saturday, January/8, 1980: 12:00 PM Hardware meeting

At: New Carrollton Public Library
7414 Riverdale Road (Hwy 410), New Carrollton, MD
IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECIEVE Dues $=\$ 1$ b. 00 per year, oer family.
ए

